
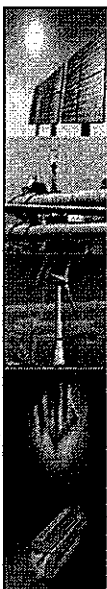


**PORTFOLIO COMMITTEE ON ENERGY  
BRIEFING ON INTERNATIONAL  
AGREEMENTS OF THE DEPARTMENT OF  
ENERGY**

**4 September 2012**




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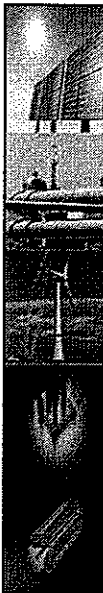


**Introduction**

- Introduction
- Bilateral agreements per discipline
- international membership to Bodies per discipline
  - Hydrocarbons
  - Clean Energy
  - Electricity
  - Nuclear
  - Energy planning
  - Multilateral inter-disciplinary bodies
  - Africa and SADC (to be discussed in the context of agreements)
- Conclusion.



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## Hydrocarbons

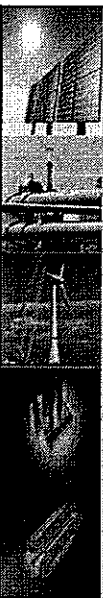
- Security of oil and gas supply through access to producing and near producing assets and to diversify sources of supply for oil and gas. Engagements with the following countries are in progress to secure oil and gas:-
- **Venezuela**- A government to government MOU for cooperation in the energy sector was signed with Venezuela and subsequently between PetroSA and PDVSA the national oil company of Venezuela- signed an agreement in 2009. PetroSA secured blocks and is working on marginal blocks. PetroSA is currently evaluating blocks to enable the company to make a commercial decision on the viability of the block under consideration.



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## Hydrocarbons

- **Egypt**- signed an MOU on Oil and gas and developed an implementation plan in 2010. PetroSA worked on a block in Egypt but was not successful. Attempts to explore for more opportunities have not yet materialised as new administration is currently settling in.
- **Ghana**- drafted an MOU on Oil and Gas and now signed in September, 2011 and working on an implementation plan. PetroSA is currently exploring potential opportunities in the country.
- **Algeria** –signed an MOU in 2010 on Oil and Gas- and PetroSA working on an implementation plan
- An nuclear MOU was signed and Necsa will be working with the relevant partners once Algeria has indicated areas of priority



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## Hydrocarbons

- **Republic of Angola** - A government to government MOU was signed in 2009. An Electricity implementation plan was developed and awaits implementation but has to be driven from Angola as projects are to be implemented in Angola
- Oil and gas-PetroSA and Sonangol exploring areas of Cooperation in the oil and gas and currently exploration potential projects of commercial interest
- **Mozambique**- RSA and Mozambique Gas Commission – promoting gas development and trading between the countries
- Sasol gas is from Mozambique and this gas essentially supported the Sasol petrochemical project



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## Hydrocarbons

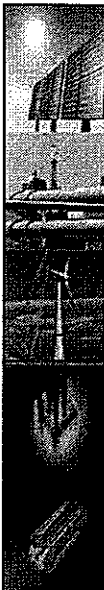
- **Namibia**- RSA and Namibia Gas Commission to promote development of gas assets.
- Negotiations are on going on the commercialisation of the Kudu Gas
- Opportunities exist in the upstream and both private companies and PetroSA are encouraged to explore these opportunities.
- Oil trading- Increase trading in petroleum products with the African continent mainly- Angola and Nigeria (crude trading) and Mozambique – gas.



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## Hydrocarbons infrastructure

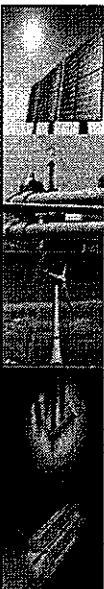
- Peoples Republic of China- MOUs have been signed with government, companies and financial institutions to further cooperation in the energy sector. For instance:
- MOU between PetroSA and SINOPEC (30/09/2011)
- The MOU allows the two companies to explore the possibility of working together to develop the Mthombo project, conduct exploration and production , engage in wholesale trading and distribution of petroleum products in South Africa and crude trading in general.
- Cooperation initiated between PetroSA and SINOPEC Department signed and MOU with Peoples Republic of China



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## Hydrocarbons infrastructure

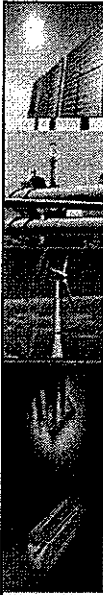
- China Development Bank (CDB) Energy – RSA signed an MOUs which enabled the energy sector to access funding as well as PetroSA to forge relations with Chinese companies
- CDB is keen to fund the energy infrastructure projects and any other projects in the energy sector. Negotiations are in progress regarding the funding models and mechanism to ensure alignment with policies of both countries especial issues related to technology, job creation, industrialization and the cost of borrowing.



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## Hydrocarbons infrastructure

- A number of companies have signed business agreements with Chinese companies to invest in the energy sector in RSA and projects are being monitored to ensure that there is:-
  - mutual benefit, alignment to the job creation initiative, the compliance to IPAP 2
  - localization imperatives and
  - technology transfer and
  - skills development in all investment projects



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## Electricity

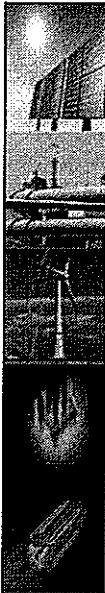
- **India**- South Africa signed a cooperation agreement with India to promote cooperation in electricity and electrification programs. Not much has been done but the DOE has identified potential in the renewable energy sector mainly.
- **Botswana**- RSA signed an agreement on energy which focus on electricity, and trading in petroleum products. An implementation plan to operationalize the signed agreement will be developed soon.
- **Zambia**- RSA signed an agreement on energy with a special focus on electricity and energy efficiency. Eskom is currently working with Zambia on an implementation plan. The DOE is exchanging policy information and programs on energy efficiency.



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## Electricity

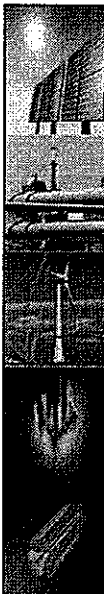
- **Mozambique-** RSA signed agreements with Mozambique on energy with a special focus on electricity. Eskom is currently working with the Mozambican government both at bilateral and multilateral level through SAPP on projects related to electricity.
- **Lesotho-** RSA signed an MOU with Lesotho that covers mainly electricity. The RSA and Lesotho are currently developing an implementation plan that will cover projects in hydro, wind, solar and energy efficiency



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## Electricity

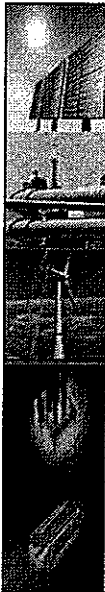
- **Democratic Republic of Congo (DRC)** – RSA signed an MOU on the Grand Inga Project. The MOU provided for the development of a Treaty. The MOU paved the way for developing a Treaty between the two countries which will enable South Africa and the DRC together with other countries to exploit the potential of the Grand Inga to generate approximately 40000MW of hydro electricity.
- The DOE together with other departments have developed a draft Grand Inga Treaty which will be table to the DRC for negotiations.



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## Clean Energy

- **Switzerland**-A project on energy efficiency has been initiated. The project has challenges but these are being addressed. the project will enable the DoE to have a trained team capable of evaluating projects on energy efficiency, a monitoring and evaluation tool internationally benchmarked which can be deployed nationally and a monitoring reporting system.
- **Denmark**- MOU between the Government of the RSA and the Government of the Kingdom of Denmark in the fields of renewable energy and energy efficiency.
- Denmark is a global leader in wind energy and through this agreement it is assisting RSA to develop a wind awareness campaign, development of wind atlas, skills and technology transfer.



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## Clean Energy Multilateral Relations

- **IBSA**-The task team has been established but work is being done in RSA to ensure that the biofuels project takes off the ground.
- Workshops and seminars have been conducted in all three countries. Brazil and India biofuels sectors are progressing and RSA is benefits from lessons from these countries.
- Lessons from Brazil will assist RSA team to fast track the biofuels implementation program in the country.




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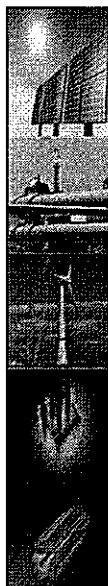


## Clean Energy

- **International Renewable Energy Agency (IRENA)** - RSA is a member of IRENA as well as being a council member at IRENA.
- The organisation assists countries to develop policies to promote the deployment of renewable energy worldwide.
- The initiatives have a special focus on Africa and developing countries. South Africa has benefited from training offered by the institution as well as reports generated and the training offered the public and media community in RSA during COP 17.
- IRENA has also supported the Department through experts who participate in RSA scheduled conferences. A global Wind Atlas has been launched and a special focus in Africa is under consideration.




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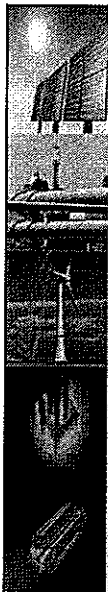
## Clean Energy

- **Clean Energy Ministerial** - Spearheaded by the USA – Major Economies Forum (24 countries participate)
- RSA is the only country on the Clean Energy Ministerial initiative in Africa
- Global forum promoting policies and programs that advance clean energy technologies
- A total of 11 initiatives supported by the CEM, and RSA is a member of the following:
- Multilateral Solar and Wind Working Group
- Global Superior Energy Performance Partnership (GSEP) GSEP aims to reduce global energy use in industrial facilities focus on cement, steel and energy management



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## South African Renewable Energy Initiative

- SARI Agreement has been signed by four countries and one investment bank.
- The South African government through the NT is currently working on operationalisation of the fund by developing a model and instrument to facilitate flow of funds.
- SARI has been moved from the DTI to DoE and currently approval has been issued to employ staff to work in the SARI unit.
- Approval is being sought from NT for funding



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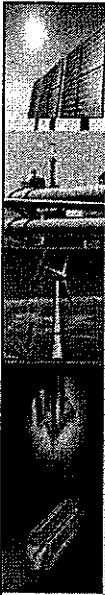
## Clean Energy Ministerial

- Energy Efficiency Initiative
- Electric Vehicle Initiative
- Carbon Capture use and Storage Action Group
- Solar and LED Energy Access Programme
- Clean Energy Education and Empowerment Women Initiative (C3E)
- Smart Grid Initiatives
- Super Efficient Appliance and Deployment Initiative - SEAD



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## Africa EU Energy Partnership

- RSA is a member of the Africa EU Energy partnership driven by the African Union.
- The aim of the Africa-EU Energy Partnership (AEEP) Forum is to achieve progress on the AEEP 2020 Political Targets by actively involving the European and African private sector, civil society, and research in the partnership. The Forum brings together all relevant stakeholder groups including financial institutions to jointly explore the potential of implementing “actions on the ground” and to discuss and communicate key issues as well as recommendations to political decision-makers.



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## Africa EU Energy Partnership

- Renewable Energy and Energy efficiency
- 10 000 MW of new hydro facilities
- 5000 MW of wind power capacity
- 500 MW of all forms of solar energy
- Triple the capacity of other renewables
- Improve energy efficiency in Africa in all sectors
- Bring modern and sustainable energy access to at least 100 million people on the continent
- Double the capacity cross boarder electricity interconnections both within Africa and between Africa and the EU
- Double the use of natural gas in Africa and double export to the EU



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## African Energy Ministers Conference (AEMC)

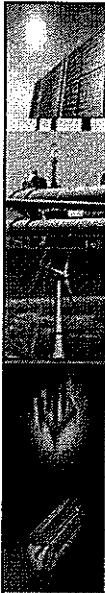
- South Africa is a member of the African Energy Ministers Conference
- In preparation for COP 17, the DOE held several events including (AEMC) attended by more than 45 countries.
- The Ministers from the continent outlined projects of priority and made a conscious decision to support climate change initiatives through deployment of sustainable energy programs
- Highlighted the need for funding, technology & skills transfer.
- Through this initiative, the DOE has contributed to furthering the African Continent energy agenda. The conference was cohosted with the African Union.



## International Energy Agency

- MOU with the International Energy Agency (2011) to promote capacity building and support in energy planning and research- implementation plan has been signed off and training under this agreement initiated.
- An MOU has been signed with the IEA and this focus on energy planning, modelling and forecasting.
- The energy planning unit is being capacitated in the above areas and supported in conducting various modelling initiatives in the DOE.





## Nuclear

- The Department has relations with multilateral bodies that promote the safe use of nuclear and adhere to the principals of non-proliferation.
- The Department has taken active interest and followed up on the Fukushima Nuclear disaster with the aim of learning from the accident
- Bilateral engagements have been conducted and agreements concluded with Algeria, Korea and China and currently exploring cooperation with other countries such as Uganda and Ghana
- The Department has benefited from exchange of information, capacity building from bilateral and multilateral relations



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## Access to funding

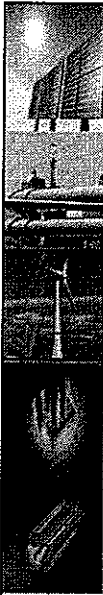
- Declaration of Intent (DOI) on the South African Renewables Initiative
- This DOI enables the South African Government to access soft loan from signatory countries and institutions to support deployment of RE
- The MOU will also facilitate job creation technology transfer and localisation
- Denmark, UK, Germany, Norway and the European Investment Bank have signed and will be committing funds to the initiative.



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## Multilateral Agreements

- All the agreements that the DOE signs have a component of information sharing and capacity building
- **Carbon Sequestration Leadership Forum-** Change in technology and quest for new energy technologies necessitates training and ensuring the country state of readiness to deploy new technologies (renewable energy, Carbon Capture & Storage)
- **International Atomic Energy Agency** – provides extensive training for the sector
- **International Energy Forum-** This is a dialogue forum for oil and gas major producers and consumers and offers a platform to discuss vexing issues affecting the energy



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## SADC Regional initiatives

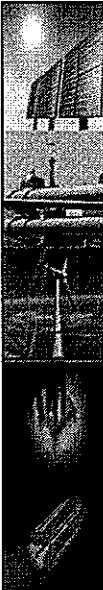
- Energy Ministers Annual Meeting
- Approved development of a renewable energy strategy for SADC, infrastructure development master plan
- Alignment of regulatory policies to ensure trade and investment regionally e.g. Regional Electricity Regulatory Authority
- Conducted capacity building workshops on energy for example clean development mechanism led by RSA, on biofuels and food security, and data collection
- South Africa supporting the establishment of designated national authorities in the region
- Promotion of regional electricity interconnectivity and support to the **Southern African Power Pool (SAPP)** and related projects



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## SADC POWERPOOLING

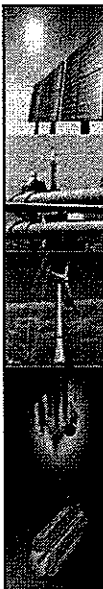
- Power trading is possible in the SADC region but there is need to create an enabling environment.
- With SADC, governments, utilities, developers have identified that problems exist in the enabling environment (e.g. financing, security of supply, regulation, pricing) for long-term cross-border power trading
- Map shows a number of potentially viable cross-border projects



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## SAPP Transmission Projects

2012 DRC - Zambia

2013: ZIZABONA = 220/33kV

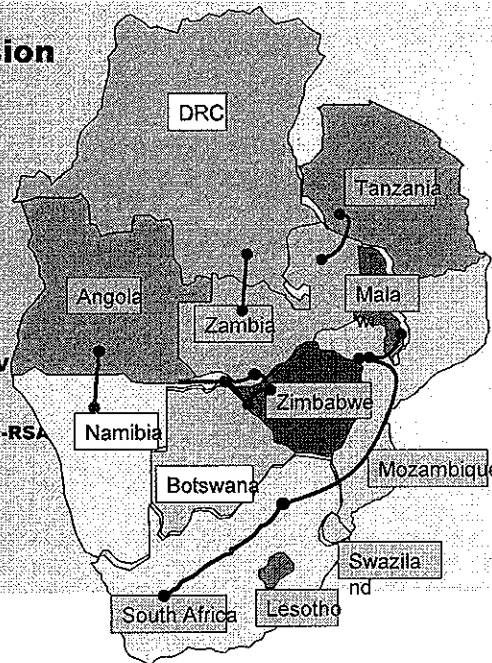
2013: Mozambique Malawi

2014: Zambia - Tanzania - 400 kV

2016: MOZAMBIQUE BACKBONE - RSA

2015: RSA Strengthening

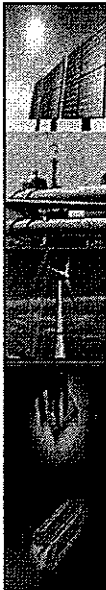
2017: Namibia - Angola



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## SADC APPROVED ENERGY INFRASTRUCTURE PROJECTS

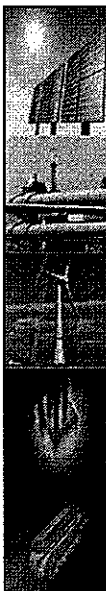
- Transmission Backbone in Mozambique
- HCB North Bank in Mozambique
- Mpanda Nkuwa Hydro Power Project in Mozambique
- Batoka Hydro project in Zambia and Zimbabwe
- Kafue Gorge Lower in Zambia
- Kariba South Extension in Zimbabwe
- Kudu Gas Power Project in Namibia



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## SADC APPROVED ENERGY INFRASTRUCTURE PROJECTS

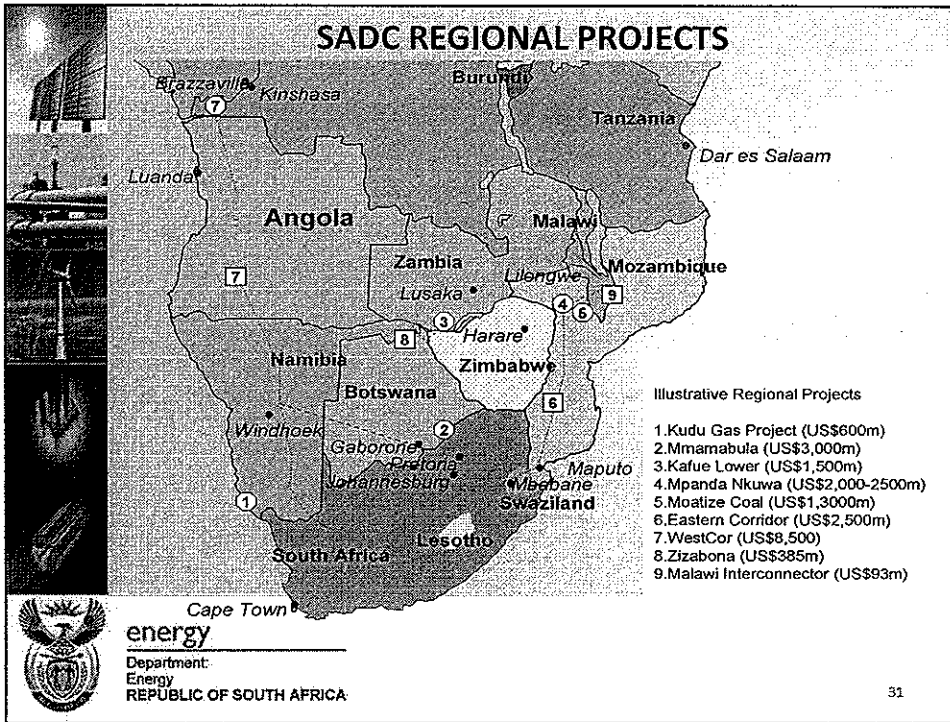
- Zambia – Tanzania – Kenya Interconnector
- Mozambique – Malawi Interconnector
- Namibia – Angola Interconnector
- DRC – Angola Interconnector
- ZIZABONA Interconnector
- Central Transmission Corridor (CTC) in Zimbabwe
- Kafue – Livingstone Transmission Upgrades



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### Energy Diplomacy

- The DOE works closely first with immediate stakeholders such as the SOEs and companies that invest outside the country in the energy sector
- The DOE works with other sister department and in fact the three spheres of government to ensure that the interests permeate in the energy strategy
- The DOE works closely with different units with DIRCO, other spheres of government to ensure that there is close alignment in the following areas:-
  - Politically, Security, Economically
  - Understanding of global trends and implications on the energy sector.

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## Conclusion

- The DOE has initiated both multilateral and bilateral relations that focus on ensuring that the country has access to
- Secure, affordable and accessible energy
- Access to funding, technology & technology transfer
- Skills to be able to deploy technology intensive projects, promote localisation and job creation &
- Embraces the African continent and SADC region South – South Cooperation and North - South in line with DIRCO policy



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# Thank you

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